

Circular Connectors for Commercial Aircraft Fuel Sensors

Hermetically sealed filtered connectors protect fuel tank sensor circuits from interference

Fuel tank sensors are a critical part of in-flight fuel measurement systems. Commercial pilots ensure flight safety by monitoring the plane's weight and balance through its fuel consumption rates. Spectrum Control's rugged, hermetically sealed filtered circular connectors with steel shells protect the circuits of these sensors from electromagnetic interference (EMI) that can be caused by the plane's avionics.

Why Spectrum Control's Connectors are Chosen

Spectrum Control offers filtered compact shell connectors that provide an effective filtering device, reducing the amount of real estate required within a product enclosure. Using our expertise in EMI filter design and manufacturing, we offer planar-style filtered arrays, available in C and Pi circuits up to 200nF, in most configurations. Other filter circuits including transient protection are available.

Hermetic seals protect against changes in atmospheric pressure and exposure to humidity, grime, and chemicals.

Plus, Spectrum Control manufactures the ceramic capacitors used as the filtering element in all of its filtered connectors. They are designed and produced in Spectrum Control's State College, PA (USA) facility. This provides customers with high-quality parts and the industry's shortest lead times.



Hermetic filtered connectors are available in EMI filtered or unfiltered versions, including military standards.



Filtered connectors ensure the functionality of avionics systems by safeguarding the electronics from interference.

Clear Competitive Differentiators

Spectrum Control connectors offer a large planar capacitance pin-to-pin ratio range providing power and signal filtering in a single package. Custom circular connectors can be designed to meet RTCA/DO-160 Lightning Strike requirements, and have insulated and ground line options. EMI filtered connectors with complex schematics can also be designed for unique requirements.

Spectrum Control can also perform complete electro-mechanical assembly and testing services. Reliability is ensured through 100% testing of each position for critical electrical parameters.

Electrical specifications

- Voltage rating: 200 VDC
- Dielectric withstanding voltage: 500 VDC
- Temperature range: -55 to 125°C
- Insulation resistance: 1000 MΩ, μF or 10KMΩ